except that the end pleats 26 and one adjacent pleat 24 are positioned on the lateral edges around the pocket 88. A heat/pressure device, such as the illustrated constant heat iron 90, can then be used to thermally bond the section 84 of the screen material 80 to the pocketed pleats of the filter media. (Figure 9B.) The end sections 82 of the screen material are not yet bonded to the filter media. –

In the Claims:

Please amend claims 1, 7, 10, 20, 22, 26, 40, 41, 44, and 52 to read as shown below. The changes to claims 1, 7, 10, 20, 22, 26, 20, 41, 44, and 52 are detailed in the attached Appendix.

1. (Amended) A microfilter element for removing impurities in the range of about 0.5 μm to about 25.0 μm from aviation fuel, said element comprising a cylindrical filter media and an exoskeleton for the filter media;

the filter media including a filtration layer sandwiched between inner and outer layers;

the filtration layer being made of fiberglass or at least one polymer;

the inner and outer layers being made of a non-woven polymer;

the layers of the filter media being folded into a plurality of longitudinally-extending pleats with a density of about 8 or more pleats per inner diameter inch;

the exoskeleton comprising a support screen bonded to peaks of the pleats to support the pleats in an appropriately spaced and non-collapsed condition;

the support screen providing at least 50% open flow area and a tight array of attachment points so that the filter media is sufficiently supported without having cellulose-fiber and/or woven-mesh endoskeleton support layers.

7. (Amended) A microfilter element as set forth in claim 1, wherein the plurality of longitudinally-extending pleats include two end pleats joined together at a

side seam, wherein the side seam comprises an adhesive bead which encapsulates all of the layers in distal ends of the end pleats, and wherein the adhesive bead extends radially inward between the end pleats.

10. (Amended) A filter element comprising a cylindrical filter media and an exoskeleton support structure surrounding the filter media;

the filter media being formed from only cellulose-fiber-free and woven-mesh-free layers including a filtration layer sandwiched between inner and outer layers;

the layers of the filter media being folded into a plurality of longitudinally-extending pleats having radially-inner peaks defining an inner diameter, radially-outer peaks defining an outer diameter, and side walls extending therebetween;

the exoskeleton support structure being attached to the radially-outer peaks and/or radially-inner peaks in such a manner that the filter media is sufficiently supported without cellulose-fiber and/or woven-mesh endoskeleton support layers;

wherein the layers of the filter media consist essentially of the filtration layer, the inner layer, and the outer layer.

20. (Amended) A cylindrical filter media comprising a plurality of longitudinally extending pleats and a side seam;

the plurality of pleats including two end pleats each including a filtration layer, an inner layer and an outer layer;

the two end pleats each having a distal end, a radially-inner peak, an endmost sidewall extending from the distal end to the radially-inner peak, and a radially outer peak;

the sidewalls being positioned adjacent each other and the distal ends being positioned radially outward relative to the radially-inward peaks; and

the side seam comprising an adhesive bead which encapsulates all of the layers in the distal ends of the end pleats;

wherein the adhesive bead extends radially inward between the respective sidewalls of the end pleats.

22. (Amended) A cylindrical filter media as set forth in claim 20, wherein the adhesive bead extends circumferentially between the radially outward peaks of the two end pleats.

26. (Amended) A filter element comprising a cylindrical filter media and an exoskeleton support structure for the filter media;

the cylindrical filter media comprising a plurality of longitudinally-extending pleats having radially-inner peaks defining an inner diameter, radially-outer peaks defining an outer diameter, and side walls extending therebetween;

the exoskeleton support structure comprising a support screen having a first set of cords extending in a first direction, a second set of cords extending in a second direction and intersecting with the first set of cords, and openings defined therebetween;

the cords being attached to each of the radially-outer peaks or each of the radially-inner peaks thereby exoskeletonally supporting the pleats in an appropriately spaced and non-collapsed condition;

adjacent cords in the first set being separated from each other by a distance d_1, adjacent cords in the second set being separated from each other by a distance d_2, and adjacent radially-outer peaks being separated from each other by a distance d_{pleat}; and

the distance d_1 between the first set of cords being about half to about twice the distance d_{pleat} between adjacent radially-outer peaks;

wherein the support screen is non-adhesively attached to the peaks.

40. (Amended) A filter element as set forth in claim 39, wherein the side seam extends substantially parallel to a longitudinal axis of the filter media.

41. (Amended) A filter element as set forth in claim 39, wherein the lateral edges overlap and are non-adhesively thermally bonded together.

44. (Amended) A filter element as set forth in claim 39, wherein the sheet of screen material is rectangular in shape prior to its lateral edges being joined together at the side seam.

52. (Amended) A coalescer element for removing free water and particulates from aviation fuel, said element comprising a cylindrical media and an exoskeleton for the media;

the cylindrical media comprising a plurality of longitudinally-extending pleats having radially inward peaks;

the exoskeleton comprising a support screen non-adhesively bonded to each of the radially inward peaks of the pleats to support the pleats in an appropriately spaced and non-collapsed condition; and

the support screen providing at least 50% open flow area and a tight array of attachment points so that the filter media is sufficiently supported without a central support tube.

Please add the following claims 53-65:

53. A filter element as set forth in claim 10, wherein the filtration layer is made of at least one of fiberglass, nylon, polyamide, polyester, polyethylene, polypropylene, or mixtures thereof.

54. A filter element as set forth in claim 10, wherein the inner and outer layers each have a thickness of less than about 0.030 inches.

55. A filter element as set forth in claim 10, wherein the inner and outer layers are each made of a non-woven polymer.

56. A filter element as set forth in claim 10, wherein the layers of the filter media consist essentially of the filtration layer, the inner layer, and the outer layer,

wherein the filtration layer is made of at least one of fiberglass, nylon, polyamide, polyester, polyethylene, polypropylene, or mixtures thereof, and wherein the inner and outer layers each have a thickness less than about 0.030 inches and are made of a non-woven polymer.

57. A filter element as set forth in claim 56, wherein the filter media has a pleat density of about 8 or more pleats per inner diameter inch.

58. A filter element as set forth in claim 10, wherein the filter media has a pleat density of about 8 or more pleats per inner diameter inch.

59. A filter element as set forth in claim 26, wherein the support screen is thermally bonded to the peaks.

60. A filter element as set forth in claim 59, wherein the support screen is made of a PVC coated fiberglass mesh.

61. A filter element as set forth in claim 26, wherein the support screen comprises a sheet of mesh material having lateral edges joined together at a side seam which extends substantially the length of the longitudinal axis of the filter media.

62. A filter element as set forth in claim 61, wherein the lateral edges overlap and are thermally bonded together.

63. A filter element as set forth in claim 62, wherein the support screen is made of a PVC coated fiberglass mesh.

64. A microfilter element for removing impurities in the range of about 0.5 μm to about 25.0 μm from hydrocarbon fuel, said element comprising a cylindrical filter media and an exoskeleton for the filter media;

the filter media including a filtration layer sandwiched between inner and outer layers;

the filtration layer being made of fiberglass or at least one polymer;

the inner and outer layers being made of a non-woven polymer;

the layers of the filter media being folded into a plurality of longitudinally-extending pleats with a density of about 8 or more pleats per inner diameter inch;

the exoskeleton comprising a support screen bonded to peaks of the pleats to support the pleats in an appropriately spaced and non-collapsed condition;

the support screen providing at least 50% open flow area and a tight array of attachment points so that the filter media is sufficiently supported without having cellulose-fiber and/or woven-mesh endoskeleton support layers.

65. A microfilter element for removing impurities in the range of about 0.5 μm to about 25.0 μm from fuel, said element comprising a cylindrical filter media and an exoskeleton for the filter media;

the filter media including a filtration layer sandwiched between inner and outer layers;

the filtration layer being made of fiberglass or at least one polymer;

the inner and outer layers being made of a non-woven polymer;

the layers of the filter media being folded into a plurality of longitudinally-extending pleats with a density of about 8 or more pleats per inner diameter inch;

the exoskeleton comprising a support screen bonded to peaks of the pleats to support the pleats in an appropriately spaced and non-collapsed condition;

the support screen providing at least 50% open flow area and a tight array of attachment points so that the filter media is sufficiently supported without having cellulose-fiber and/or woven-mesh endoskeleton support layers.

Kindly cancel claim 21 without prejudice or disclaimer.